In the Claims:

Claim 1 (canceled).

Claim 2 (previously presented): The method of claim 15 wherein the glucagon-like peptide-1 is selected from (a) a peptide which comprises the amino acid sequence of glucagon-like peptide-1, and (b) a variant peptide comprising an amino acid sequence that differs from the sequence of glucagon-like peptide-1 by one or more substitutions, deletions or insertions wherein said variant binds to the glucagon-like peptide-1 amide receptor protein and has a corresponding biological affect on insulin secretion as GLP-1 (7-36) amide.

Claim 3 (canceled).

Claim 4 (currently amended): The method of claim 2 wherein the ~~receptor binding compound~~ glucagon-like peptide-1 is glucagon-like peptide-1 (7-37) which has the sequence His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly (SEQ. ID NO:3).

Claim 5 (currently amended): The method of claim 2 wherein the ~~receptor binding compound~~ glucagon-like peptide-1 is glucagon-like peptide-1 (7-36) amide which has the sequence His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg (NH_2) (SEQ. ID NO:4).

Claim 6 (currently amended): The method of claim 2 wherein the ~~receptor binding compound~~ glucagon-like peptide-1 is a variant peptide in which the combination of the substitutions, deletions and insertions in the amino acid sequence does not differ by more than ten amino acids from the amino acid sequence of glucagon-like peptide-1.

Claim 7 (previously presented): The method of claim 15, further comprising using an agent which enhances the half-life *in vivo* of the compound.

Claim 8 (canceled).

Claim 9 (previously presented): The method of claim 15 wherein the patient is simultaneously infused with a combined glucose/GLP-1 or its biologically active analogue.

Claim 10 (previously presented): The method of claim 15 wherein the patient is first infused with glucose and then later with GLP-1.

Claim 11 (previously presented): The method of claim 15 wherein the dose of GLP-1 is a bolus dose intravenously administered at from .05 nmol to 100 nmol.

Claim 12 (previously presented): The method of claim 15 wherein the dose is a bolus subcutaneous method at from 10 nmol to 1000 nmol.

Claim 13 (previously presented): The method of claim 15 wherein the patient is infused with a dose of GLP-1 or a biologically active analogue continuously infused by I.V. at from 0.1 pmol/kg/min to 10 pm/kg/min.

Claim 14 (previously presented): The method of claim 15 wherein dosing is continuous subcutaneous infusion at a dose of from 0.5 to 50 pm/kg/min.

Claim 15 (previously presented): A method of detecting impaired glucose tolerance of individuals by evaluation of β-cells secretory capacity, comprising:

infusing the individual with glucose and a glucagon-like peptide-1 or its biologically active analogue expressed by a polynucleotide wherein said analogue binds to the glucagon-like peptide amide receptor protein and has a corresponding effect on insulin secretion as GLP-1 (7-36) amide; and thereafter

measuring the insulin and C-peptide responses against standard responses of healthy subjects to determine if the individual has impaired β-cell function.